Environmental Assessment Decision Notice

Environmental Assessment for Montana Fish, Wildlife & Parks Region 3 and 4, Missouri River Basin Northern Pike Suppression Project

Montana Fish, Wildlife & Parks

Region 3 Bozeman and Region 4 Great Falls

February 23, 2012

Proposed Actions

Montana Fish, Wildlife and Parks (FWP) proposes to conduct suppression actions on northern pike to reduce threats to Upper Missouri River Basin wild trout populations and reservoir fisheries. The proposed action would involve finding and removing northern pike from the headwaters of the Madison, Gallatin, and Jefferson River basins downstream to Holter Dam on the Missouri River. Funding for this effort would be through existing budgets. All northern pike removed during this project would be killed; northern pike that are salvageable and of suitable size for consumption would be field dressed and donated to food banks or other similar organizations.

Montana Environmental Policy Act

Montana Fish, Wildlife & Parks is required by the Montana Environmental Policy Act (MEPA) to assess significant potential impact of a proposed action to the human and physical environment. In compliance with MEPA the environmental assessment, entitled "Environmental Assessment for Montana Fish, Wildlife & Parks Region 3 and 4, Missouri River Basin Northern Pike Suppression Project" was released on 7 April 2011, for a 30-day public comment period, which ended on 6 May 2011.

The draft EA was circulated to standard FWP Region 3 and 4 contact lists, and to local landowners, sporting groups, government and federal agencies. The EA was posted and remains available for viewing on the FWP webpage: http//fwp.mt.gov/news/publicNotices. Legal notices indicating release of the EA were sent to local media including the Bozeman Chronicle, the Great Falls Tribune, the Montana Standard, and the Helena Independent Record.

Summary of Public Comment and FWP Response

Montana Fish, Wildlife & Parks received a total of 32 comments. Of these comments 19 were classified as opposed to the proposal, 8 were classified as supportive, two were not sure of the proposal (for example, one was against use of rotenone, which is not being considered by FWP), and three were unclear as to whether they were opposed or supportive.

Issue 1. There were several comments received by the public that asked for variations on specific locations of suppression activities. In some cases (4 comments) commenter's wanted suppression

actions only upstream from Toston Dam, others wanted no suppression from Toston Dam to the Three Forks area, and other commenter's asked about what could be done downstream from Toston Dam. One other commenter asked for further details on the specifics of suppression actions (location and methods).

Response: Fish, Wildlife & Parks believes Toston Reservoir to be one of the primary sources of northern pike reproduction from which juvenile pike are dispersing to upstream and downstream waters. Under the proposed action, FWP would suppress northern pike (using gill nets, electrofishing and other standard gears; listed in the Environmental Assessment) in Toston Reservoir to minimize the risk of northern pike spreading throughout the system (either through escapement or due to being moved by anglers). Several northern pike tagged in Toston Reservoir have been recovered downstream. For example, a northern pike tagged in Toston Reservoir in 2010 was harvested by an angler in the Causeway area of Hauser Reservoir in 2011, and several fish tagged in the reservoir have been harvested by anglers in the Missouri River immediately below Toston Dam. A less intensive suppression effort would take place during routine electrofishing surveys in the river between Toston Dam and Canyon Ferry Reservoir. Similar methods would be used; however, electrofishing is likely the most effective method in flowing habitats. Upstream from Toston Reservoir to the lower reaches of the Jefferson, Madison and Gallatin rivers, occasional suppression actions will take place where pike are searched for and removed. All pike encountered during standard annual sampling would be removed.

In Canyon Ferry, Hauser, and Holter Reservoirs no active northern pike suppression is proposed at the current time. However, all northern pike observed through standard annual sampling would be removed. If concentrations of northern pike are discovered in Canyon Ferry, Hauser, or Holter reservoirs, active northern pike removal would be covered by the Environmental Assessment.

In all cases, FWP intends northern pike suppression to be dynamic, such that any new location where northern pike are observed throughout the project area can be suppressed under this Environmental Assessment, whether it is passive (through annual sampling) or actively searching for northern pike. This approach is necessary given the early stage of establishment of northern pike in the project area. It is unknown at this point where northern pike will become established and at what level. Therefore, the suppression program needs to be responsive and dynamic to minimize impacts to wild trout and reservoir fisheries.

In any situation, FWP cannot ignore any section of water when considering the risk for northern pike expansion and establishment. If Toston Reservoir is in fact the primary source of northern pike being observed upstream and downstream from the reservoir, then failure to address this source would be counterproductive.

Issue 2. Comments were received regarding the limiting factors for the trout populations within the Toston to Three Forks area, suggesting that pike were not the limiting factor. In addition, comments were received stating that trout are abundant and pike are not.

> Response: Historically and at the present time FWP agrees that habitat and low flow conditions have been limiting to trout populations within parts of the project area (especially the Jefferson and Missouri from Three Forks to Canyon Ferry Reservoir). It is likely that drought conditions will continue to influence trout populations within the project area in the future. Predation losses due to pike or other species are expected to be more severe when trout habitat is limited by poor stream flow conditions.
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> FWP assumes that the comment received stating that trout are abundant refers broadly to western Montana, given that trout densities are relatively low (100 to 400 trout per mile) in the reach from Three Forks to Canyon Ferry Reservoir compared to other large rivers in the Upper Missouri Basin. Many high-quality trout fisheries exist in Southwest Montana, and public support for maintaining these fisheries remains high. Therefore, suppressing northern pike to minimize the risk of northern pike to wild trout population is an important management approach.

Issue 3: Many general comments were received on the Environmental assessment related to the general draw of northern pike to anglers. Comments received addressed various aspects of northern pike, including: pike are popular, it is nice not to have to travel long distances to fish for pike, like the idea of a multispecies fishery, anglers prefer catching pike over trout, pike will increase economic draw to the area.

> **Response:** Suppression of pike will not eliminate them from the system and anglers will continue to be able to fish for pike in the Upper Missouri System. A balanced population of predator and prey will allow for anglers seeking other species to continue angling in the local area. Further, FWP's mission is not to provide fishing opportunities for all species in all regions of the state. The Southwest region of Montana is managed primarily for wild trout fisheries.
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> Although economics and angling pressure are always a secondary effect of many fish management actions, the primary responsibility of the agency is to foster healthy fish communities within a healthy system. Failure to control a potentially dominant predator species (especially when recently introduced to a system) would neglect an important responsibility of the agency. FWP believes that the economic impact that northern pike could have on blue ribbon trout fisheries far outweighs the economic impact of limiting the northern pike population near Toston Reservoir.

Issue 4: FWP received many comments related to removing or reducing the impact of northern pike in the Upper Missouri River system, in effect supporting the proposed alternative. Comments included: "given the importance of trout fisheries, it is incumbent for FWP to address the potential threat of an expanding pike population"; "Timing is good (for suppression) with predictable occupancy (habitat), early stage, and fishing regulation changes"; "Have observed pike affecting other fish populations in

Montana (Flathead, Echo Lake, and Salmon-Seeley)"; "Don't allow northern pike to crash fisheries such as walleye did in Canyon Ferry"; "Don't reward bucket biology"; "Pike are typical wolf in a fish population"; "people can fish for pike in other areas, and we don't want them in the Missouri River"; and "Don't want to see more waters wrecked".

> **Response:** FWP agrees that northern pike are a significant threat to the wild trout and reservoir fisheries in the Upper Missouri River Basin. FWP initiated a Northern Pike evaluation at Toston Reservoir in 2009 and is proposing this suppression effort after 3 years of study.

Issue 5: Several alternative actions were proposed by the public, including:

Require catch and kill regulations (pike specifically and all non-native species also).

> If removing limits for pike does not result in maximizing angler harvest and there are indications that anglers are practicing catch and release, this requirement will be considered in more detail. That said, there are very few examples of these types of regulations, and there may be enforcement and legal issues that could prevent success of such a regulation. Further, recreational angling is generally an insufficient tool to effectively reduce or eliminate fish species. When fish densities get low, anglers generally do not put sufficient effort in angling to catch the species. Successful control requires removal of all size classes of northern pike, and angler caught pike tend to be older age classes of fish.

Add new forage species to compensate for pike predation.

> **Response:** Adding new species to any fish community creates numerous known and unforeseen consequences. Predator suppression is a much more conservative and lower risk approach to attempt to maintain predator/prey balance.

Allow spearing.

> **Response:** Although allowing spearing may increase the opportunities to harvest pike, spearing is not a sufficient tool to significantly reduce northern pike populations. FWP will consider diversifying angling regulations in the future, including the use of spearing.

Install a barrier near headwaters

> **Response:** Cost for a large-river barrier would be prohibitive and impractical. In addition, the impacts of a barrier on non-target fish species migrating in this reach would be significant.

Give anglers one more year to get pike out legally.

> **Response:** As stated above under the catch and kill regulation response. Angling is not a sufficient tool to significantly reduce northern pike populations. Anglers will continue to have the opportunity to fish for northern pike, and the current harvest regulations have been liberalized.

Provide a detailed map to enhance the public's ability to control pike.

Response: FWP will evaluate the utility of providing such maps to aid anglers in harvesting northern pike. However, even with maps detailing concentrations of northern pike, anglers are unlikely to have a significant effect on northern pike populations except in areas of concentration like Toston Reservoir.

Manage habitat to improve overall fisheries.

Response: FWP actively protects and enhances habitat throughout the Upper Missouri River basin. Actions include permitting stream bank work, enhancing physical habitat and work to improve instream flows. Although physical habitat attributes are critical to determining the health of a fish community, the biological aspects (addition of exotic predators or invasive species) can impact the overall fish community, even when habitat conditions are pristine. Examples of this can be found in Flathead Lake concerning lake trout and their effect on bull trout and cutthroat trout, or throughout the western half of the state where westslope and Yellowstone cutthroat trout have been replaced by brook trout and rainbow trout (through hybridization).

Make it mandatory to kill any non-native fish caught by an angler. Consider other options that are less damaging to native and invasive species. Do the same thing for walleye. What about carp? Trout are also nonnative.

Response: Liberal harvest limits on predatory species such as northern pike and walleye are already in place. Additional measures not related to angling are likely needed to suppress predator populations such as northern pike, but mandatory harvest of all non-native species is not currently practical or enforceable.

Issue 6. Comments relative to the perceived effect of Northern Pike on trout populations:

Pike Coexist well in other waters. Pike will never hurt trout populations.

Response: Northern pike obviously do coexist with other fish species in many water bodies in North America. Northern pike and various prey species or sport fish species eventually reach a balance depending on characteristics of specific lakes. Adding pike to the upper Missouri System has uncertain effects on existing fish populations, but there is high risk of predation loss of other fish species depending on the available habitat and refuge available to prey. For example, the periodic dewatering of the Jefferson River poses is significant risk to the existing trout fishery without the presence of large predator species like pike. When low water conditions and moderate pike abundance occurs in the Jefferson River, there is a significant risk that pike will further reduce trout abundance beyond that occurring due to low flow conditions. Pike certainly have potential to impact trout fisheries in these situations.

Brown trout are predators of pike fry and will stabilize and control a pike population (form letter 1 comment).

> Response: Northern pike abundance has increased in the past ten to twenty years. Although other species, including brown trout, consume young pike, additional means to slow population expansion appear warranted. FWP has reviewed scientific literature looking for studies that document population level impacts of trout predation on juvenile northern pike, however, no studies were found describing such an impact. It is possible that food habit studies on brown trout or other salmonids have detected juvenile northern pike as prey items, but the effect of such trout predation on juvenile northern pike at a population level is unlikely and undocumented in the scientific literature.

Pike predation will increase body condition of walleye (form letter 1 comment)

> Response: Pike predation on walleye could conceivably improve condition of other walleye in the population by reducing the abundance of the walleye population. Conversely, pike predation on species currently providing forage for walleye could decrease condition of the walleye population.

Action will have adverse effect on other species besides pike, walleye in particular.

> Response: The methods proposed for northern pike removal are fairly selective. In fact, the bycatch of 3 years of sampling northern pike in Toston Reservoir with monofilament gill nets has been minimal (one hour sets of monofilament gill nets allow live release of non-target species). Electrofishing techniques are also effective at minimizing impacts to non-target species. FWP will evaluate bycatch effects and modify methods (timing, location, and technique) to minimize impacts to non-target species.

Issue 7. A variety of comments were received suggesting that this project is not likely to be effective, or feasible: Can't catch them all anyway, leave the pike alone, manage like Fort Peck. Don't waste money. Other suppression projects have failed. Already too late, pike are very well established already.

> Response: FWP acknowledges that complete elimination of northern pike from the upper Missouri River system is unlikely, but working to minimize the recruitment by removing adult pike will help prevent further expansion of the species within the basin and help keep densities of pike lower thereby reducing pike predation on other sportfish populations.
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> Failure to address the establishing northern pike population in the Upper Missouri River basin would be inconsistent with FWP's responsibilities as the manager of the fisheries resources in Montana. If northern pike continue to expand and impact economically-important wild-trout or other fish populations, FWP would be held accountable by the citizens of Montana. Secondly, the fish community, habitat, climate and operation of Ft Peck and other cool water systems are very different from the habitats in the Upper Missouri River basin.

Conduct a comprehensive study of pike impact

> Response: FWP has studied the distribution and movement on northern pike throughout the upper Missouri River Basin for four year. Through this period of time, FWP has documented distribution changes and population level changes. Many case histories exist in Montana and throughout North America to describe the effects of introduced northern pike populations on existing fish communities. Further, the scientific literature provides a plethora of diet information for northern pike, and in some cases utilizes bioenergetics modeling to estimate the population level effects of northern pike populations on other fish species. FWP is comfortable that a sound decision on management direction is possible without further research.

Missouri River provides marginal pike habitat, pike unlikely to become dominant species in the river, will pike have an effect in higher gradient streams, pike like slow water, trout like fast. Will pike truly cause harm to trout populations?

> Response: FWP agrees that certain habitats throughout the Upper Missouri River are better habitats for northern pike than others. However, sufficient habitats exist within all of the headwater rivers where pike could become established, and have at least seasonal influence on trout populations and other fish populations. In other situations throughout the basin, establishment of northern pike population will likely have measurable effects on fish populations, in particular in reservoir systems throughout the basin.

People are fishing for sustenance.

> Response: If a primary objective of the fishery was to maximize sustenance, the best focus would be to maximize abundance of fish species lower on the trophic pyramid which consume plankton and invertebrates (e.g., trout, perch, suckers, etc.). Therefore, maximizing angler harvest on predators probably provides the most efficient means to provide a sustainable fishery for those focused on fish consumption.

Comments were received by a few individuals requesting some of the pike from the removal efforts.

> Response: FWP will work to distribute northern pike that are of suitable size to food banks, wildlife rehabilitation centers and the public whenever possible; however, logistic realities will minimize FWP's ability to ensure that individuals requesting northern pike will receive them.

In conclusion, FWP recognizes that managing predator/prey dynamics is often controversial. Many of the above comments are centered on personal preferences for one species of fish over another. Based on current population trends of northern pike in the Upper Missouri River complex, FWP has determined that the risk to the fish community is highest if no action is taken. Predator suppression provides the best opportunity for achieving long-term balance of the entire fish community. If, in the future, it is determined that this suppression effort is not effective or causes unforeseen impacts, FWP maintains the discretion to cease or modify the action with a new EA process. FWP also believes conservative actions to suppress northern pike abundance are prudent, and failure to suppress northern pike may limit future options for managing the fish community. Alternatively, if suppression is no longer

desired or needed, the recovery of the predator population is predictable based on observations of the past population trend. 3

Final Environmental Assessment:
There are no modifications necessary to the Draft Environmental Assessments based on public comment. The Draft Environmental Assessments, together with this Decision Notice, will serve the final documents for these proposals.

Decision
Based on the Environmental Assessment, public comment, and the need protect and conserve wild trout and reservoir fisheries in the Missouri River drainage of SW Montana, FWP's decision is to proceed with the proposed northern pike removal efforts in the Missouri River upstream from Holter Dam.

FWP finds no significant impacts on the human and physical environments associated with this project. Therefore, we conclude that the Environmental Assessment is the appropriate level of analysis, and that an Environmental Impact Statement is not required.

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